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Patent Claims

1. A method of producing (cigarette) packs which are provided with at least one blank, in particular with a
5 coupon (11) which is folded a number of times, the blanks or coupons (11) being produced by a coupon-production means (16) and fed to a packaging machine (13), characterized by the following features:

- 10 a) following the coupon-production means (16), the coupons (11) are introduced into containers - magazines (20) - to form coupon stacks (19),
15 b) a plurality of containers or magazines (20) assigned to a batch of (cigarette) packs which are to be produced are marked, in accordance with the configuration of the coupons (11), in respect of the production of the batch of (cigarette) packs, in particular by the application of a bar code,
20 c) in the region of a processing station, in particular at a packer (13), the containers or magazines (20) are checked in respect of assignment to the (cigarette) packs which are to be produced, in particular by a reader (90)
25 assigned to the packer (13).

2. The method as claimed in claim 1, characterized in that the number of filled magazines (20) which is necessary for producing a batch of (cigarette) packs is
30 collected, in particular on one or more conveyors, for example on transporting carts (42, 43), and in that the conveyors or transporting carts (42, 43), for transporting the magazines (20) to the packer (13), are requested at the beginning of the production process.

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3. The method as claimed in claim 1 or 2, characterized in that the conveyors for conveying the

magazines (20) to the packer (13) or the like are alternatively or additionally provided with a printing carrier for applying markings or codes, in particular on the transporting cart (42, 43).

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4. The method as claimed in claim 1 or one of the further claims, characterized in that a coupon arrangement (15) or the coupon-production means (16) thereof and/or a printer (89) for applying markings on the magazines (20) and/or transporting cart (42, 43) and/or packer (13) of a packaging installation (12) and/or a machine-mounted reader (90) are/is connected to a common control unit (91), by means of which a program is created in accordance with the production of (cigarette) packs and by means of which the connected subassemblies and machines are controlled.

5. The method as claimed in claim 1 or one of the further claims, characterized by the following features:

- a) the coupon-production means (16) produces a plurality of, in particular four, coupons (11) simultaneously in one operating cycle,
- 25 b) the coupons (11), which are located one beside the other following production, are then separated and transported one after the other, namely fed to a filling station (18),
- c) in the region of the filling station (18), the coupons (11) are introduced into the open magazine (20) one after the other from above.

6. An apparatus for handling blanks in the production of (cigarette) packs with at least one blank applied to the pack, in particular a coupon (11) which has been folded a number of times, it being possible for this blank or coupon to be removed from a container, in particular a magazine (20), in the region of a

packaging machine - packer (13) - and fed to the pack, characterized by the following features:

- a) the blanks or coupons (11) can be produced by a coupon-production means (16) in the region of a separate coupon arrangement (15),
- b) the coupon-production means (16) is followed by a distributor system (17) for feeding the coupons (11) one after the other to a filling station (18),
- c) containers, namely upright magazines (20), are kept in the region of the filling station (18), it being possible for the coupons (11) to be conveyed one after the other into the magazines (20), which are open at the top, by a filling conveyor (61), a coupon stack (19) being formed within the magazine (20),
- d) the magazines (20) filled with coupons (11) can be set down on a conveyor, in particular on a transporting cart (42, 43) for transporting a selected number of magazines (20) to the packer (13).

7. The apparatus as claimed in claim 6, characterized in that a (separate) coupon arrangement (15) comprises a coupon-production means (16), a following distributor system (17) and a subsequent filling station (18), it being possible for a plurality of, in particular four, coupons (11) to be produced simultaneously in the region of the coupon-production means (16) and to be fed separately and one after the other to the filling station or the filling conveyor (61) by the distributor system (17).

35 8. The apparatus as claimed in claim 6 or 7, characterized in that the distributor system comprises a plurality of successive endless conveyors, namely receiving belts (28, 29, 30, 31), by means of which, as a result of different conveying speeds, it is possible

to produce a spacing between the simultaneously produced coupons (11), intermediate conveyors (32, 33) and connection conveyors (34, 35) and a collecting conveyor (36) by means of which the coupons (11) which
5 are fed in a plurality of paths can be brought together into a common path for transfer to an entry conveyor (37).

9. The apparatus as claimed in claim 6 or one of the
10 further claims, characterized in that the coupons arriving one after the other, in particular in the region of the entry conveyor (37) to the filling station (18), can be distributed over at least two transfer conveyors (39, 40), which are each assigned to
15 one of a number of, in particular two, filling subassemblies (26, 27).

10. The apparatus as claimed in claim 6 or one of the further claims, characterized in that, in the region of the filling station (18), upright magazines (20) can be transported one after the other, by a magazine conveyor (55), into a filling location (59) in the region of, namely beneath, the filling conveyor (61), and in that the filled magazines (20) can be conveyed by the
25 magazine conveyor (55) into a subsequent closure station (66) for the purpose of applying a closure to an upwardly oriented open side of the magazine (20), in particular for the purpose of applying a transversely directed closure strip or tape (67).

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11. The apparatus as claimed in claim 10 or one of the further claims, characterized in that the closure means, in particular the tape (67), can be applied to the top side of the magazine in the region of the
35 closure station (66) by a tape subassembly (68), it being possible for the magazine (20) to be conveyed relative to the tape subassembly (68) by the magazine conveyor (55) in order for the tape (67) to be applied.

12. The apparatus as claimed in claim 11 or one of the further claims, characterized in that, in the region of the tape subassembly (68), the tape (67) can be pressed onto side walls and onto the top side of the magazine 5 (20) by a press-on roller (80), it being possible for the press-on roller (80), which can be moved counter to pressure, to be moved by the transported magazine (20) out of a press-on position for the tape on a side wall and over the top side of the tape while guiding the 10 tape (67) in the process.

13. The apparatus as claimed in claim 12 or one of the further claims, characterized in that tapes (67) are arranged on a continuous carrier band (78), and in that 15 the spring-biased press-on roller (80) butts against the carrier band (78), to be precise on the side which is directed away from the tape (67).

14. The apparatus as claimed in claim 11 or one of the further claims, characterized in that the tape (67) is folded in a U-shaped manner around a top side of the magazine (20), namely with a leg (73) on one side and 20 an endpiece (74) on the opposite side, two press-on elements causing the tape (67) to be transferred from the carrier band (78) to the magazine, namely the 25 press-on roller (80), on the one hand, and a separately moveable pressure-exerting roller (84), on the other hand.

30 15. The apparatus as claimed in claim 10 or one of the further claims, characterized in that arranged in the region of the filling station (18), in particular following the closure station (66) for applying the tape (67), is a printing unit (89) for applying 35 production-related data or codes to the magazine (20), in particular to the tape (67).

16. The apparatus as claimed in claim 6 or one of the further claims, characterized in that the magazines

(20) filled in the region of the filling station (18) can be removed from the filling station (18) and set down on a conveyor, in particular on the bearing plate (45) of a transporting cart (42, 43), by a transfer 5 conveyor, in particular by a gantry-type conveyor (47), the gantry-type conveyor (47) preferably comprising two longitudinal members (48, 49), a transverse member (50), which can be moved along the longitudinal members (48, 49), and a carrying arm (51) which can be moved up 10 and down on the transverse member (50) and has a holder (53) for magazines (20).

17. The apparatus as claimed in claim 6 or one of the further claims, characterized in that the coupon 15 arrangement (15), in particular coupon-production means (16), and/or printer (89) and/or packer (13) and/or reader (90) for markings on the magazines (20) are connected to a control unit (91) for controlling the coupon production in dependence on requirements in the 20 region of the packer (13) and for corresponding coding of the magazines (20) and/or of the transporting carts (42, 43).